Cat. No. 14-1243

OWNER'S MANUAL

Please read before using this equipment.

SCP-99

## Auto Reverse Digital AM/FM Stereo Cassette Player
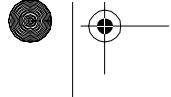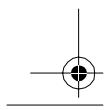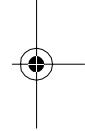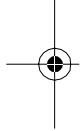
OPTIMUS®
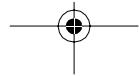
FEATURES

Your Optimus SCP-99 Auto Reverse Digital AM/FM Stereo Cassette Player delivers excellent stereo sound through your headphones or amplified speaker system. The SCP-99 is portable so you can listen to cassette tapes or the AM/FM radio just about anywhere.

Important: To listen to your SCP-99, you need a pair of headphones or amplified speakers (not supplied) with a $1/8$-inch mini-plug. Your local RadioShack store sells a wide variety of headphones and speakers.

The SCP-99's features include:

AM/FM Digital PLL (Phase-Locked Loop) Tuning — gives you precise tuning and drift-free reception.

Automatic Reverse — changes the tape direction at the end of a tape side so you can continuously play both sides of a cassette tape.

Dolby B Noise Reduction — reduces tape background noise to improve the sound you hear.
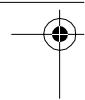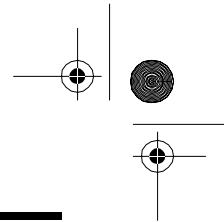
Preset Equalization — lets you select one of four preset sound characteristics for playback: classic, pop, rock, or jazz.

Tape Selector — lets you play normal or high bias/metal tapes.

Slim Design — lets you carry the SCP-99 almost anywhere.

30-Station Memory — lets you store up to 30 of your favorite radio stations for quick tuning.
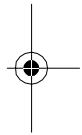
Sleep Timer — lets you set the SCP-99 to turn off after a specified time so you can fall asleep as you listen to the radio or a cassette tape.

Three Power Options — let you power your SCP-99 from internal batteries (not supplied), standard AC power (with an optional AC adapter), or your vehicle's battery (with an optional DC adapter).

Belt Clip — lets you attach the SCP-99 to your belt for hands-free carrying when you are on the go.

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CONTENTS

PREPARATION

CONNECTING POWER

You can power your SCP-99 from:

- Internal batteries (not supplied)

- AC power (using an optional AC adapter)

- Your vehicle's battery (using an optional DC adapter)

Note: Connecting an adapter automatically disconnects internal batteries.

Using Batteries

The SCP-99 can use two AA batteries for power. For the best performance and longest life, we recommend alkaline batteries, such as RadioShack Cat. No. 23-557.

You can also use rechargeable nickel-cadmium batteries (Cat. No. 23-125). Use a battery charger (Cat. No. 23-133) to recharge nickel-cadmium batteries.

Cautions:

- Use only fresh batteries of the required size and recommended type.

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• Do not mix old and new batteries, different types of batteries (standard, alkaline, or recharge-able), or rechargeable batteries of different capacities.

Follow these steps to install batteries.
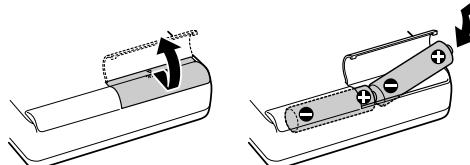
1. Press down and slide the battery compartment cover in the direction of the arrow marked on the cover, then lift open the cover.

   Caution: The battery compartment cover is hinged. Do not try to remove it.

2. Put the batteries into the compartment as indicated by the polarity symbols (+ and –) marked beside the compartment.

3. Close the cover.

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The SCP-99's battery indicator shows the amount of battery power remaining. The indicator consists of three sections — the more sections that appear, the higher the battery power. If ☼☾ appears and flashes or the SCP-99 stops operating properly, replace (alkaline) or recharge (nickel-cadmium) both batteries.

High ————→ Low
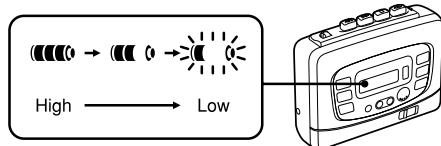
Cautions:

- If you do not plan to use the SCP-99 for a week or more, or if you plan to use only AC or DC power, remove the batteries. Batteries can leak chemicals that can destroy electronic parts.

- Dispose of old batteries promptly and properly. Do not burn or bury them.

Important: This product is capable of using rechargeable nickel-cadmium batteries. At the end of the batteries' life, they must be recycled or disposed of properly. Contact your local, county, or state hazardous waste management authorities for information on recycling or disposal programs in your area.

Some options that might be available are: municipal curbside collection, drop-off boxes at retailers such as your local RadioShack store, recycling collection centers, and mail-back programs.

Using AC Power

To power the SCP-99 from a standard AC outlet, you need an AC adapter such as Cat. No. 273-1654.

Cautions:

- You must use an AC adapter that supplies 3 volts DC power and delivers at least 200 milli-amps. Its center tip must be set to negative, and its plug must properly fit the SCP-99's **DC 3V** jack. The recommended adapter meets these specifications. Using an adapter that does not meet these specifications could damage the SCP-99 or the adapter.

- Be sure to connect the adapter to the SCP-99 before you plug it into the AC outlet, and unplug the adapter from the AC outlet before you unplug it from the SCP-99.

Follow these steps to connect the SCP-99 to AC power.
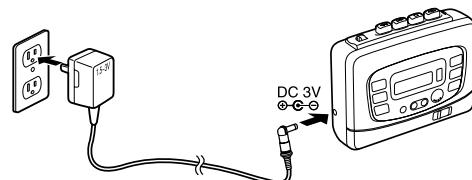
1. Set the adapter's voltage switch to 3V.

2. Insert the adapter's 3.4 mm outer diameter/1.3 mm inner diameter tip into the adapter's cord, so it reads –TIP.

3. Insert the plug into the SCP-99's **DC 3V** jack.

4. Plug the adapter into a standard AC outlet.

Using Vehicle Battery Power

To power the SCP-99 from your vehicle's battery, you need a DC adapter such as Cat. No. 273-1810 or 270-1560.

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Cautions:

- You must use a DC adapter that supplies at least 3 volts and delivers at least 200 milliamps of DC vehicle battery power. Its center tip must be set to negative, and its plug must fit the SCP-99's **DC 3V** jack. The recommended adapter meets these specifications. Using an adapter that does not meet these specifications could damage the SCP-99 or the adapter.

- Always plug the adapter into the SCP-99 before you plug it into the cigarette-lighter socket, and unplug the adapter from the cigarette-lighter socket before you unplug it from the SCP-99.

Follow these steps to power the SCP-99 from your vehicle's battery.

1. Set the adapter's voltage switch to 3V.

2. Insert the adapter's 3.4 mm outer diameter/1.3 mm inner diameter tip into the adapter's cord, so it reads –TIP.

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3. Insert the plug into the SCP-99's **DC 3V** jack.

4. Plug the other end of the adapter into the vehicle's cigarette-lighter socket.

CONNECTING HEADPHONES OR SPEAKERS

To connect your headphones or amplified speaker system (not supplied), insert the $^1/_8$-inch mini-plug into the SCP-99's ⌒ jack.
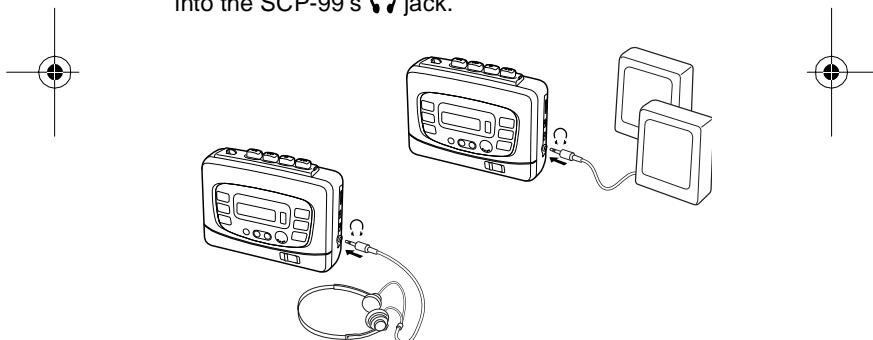
Listening Safely

To protect your hearing, follow these guidelines when you use headphones.

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- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.

- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.

- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

Traffic Safety

Do not wear headphones while operating a motor vehicle or riding a bicycle. This can create a traffic hazard and could be illegal in some areas.

Even though some headphones let you hear some outside sounds when listening at normal volume levels, they still can present a traffic hazard.

USING THE BELT CLIP

The supplied belt clip lets you keep your hands free while you listen to the SCP-99. To attach the belt clip, insert the belt clip's latches into the slots on the cassette player and slide it up until it locks into place.
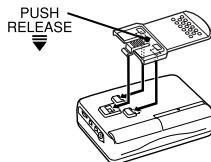
To remove the belt clip, push in on **PUSH RELEASE**, slide the belt clip downward, then lift it off.

SETTING THE FREQUENCY RANGES AND STEPS

The SCP-99 is set to tune frequencies in steps (increments) of 10 kHz (AM) and 0.2 MHz (FM) as used in the United States.

In Europe and some other countries, frequency ranges and steps are not the same as those in the United States. For example:

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In North and South America:
 AM: 530–1710 kHz (10 kHz increment)
 FM: 87.5–108.1 MHz (0.2 MHz increment)
 Note: Actual FM broadcast frequencies are
 assigned between 88 and 108 MHz.

In Europe and other countries:
 AM: 531–1602 kHz (9 kHz increment)
 FM: 87.5–108 MHz (0.05 MHz increment)

In Japan:
 AM: 531–1629 kHz (9 kHz increment)
 FM: 76–108 MHz (0.1 MHz increment)

To listen to the radio in another country, follow these steps to change the frequency ranges and steps.

Caution: Changing the frequency ranges and steps erases all stored stations.

1. Press **RADIO ON/OFF BAND** to turn on the radio.
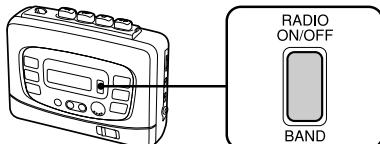
2. To listen to Japan's frequencies and steps, hold down both **AUTO PRESET** and **TUNING UP ▶** for about 7 seconds. **JP** appears briefly and a beep

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sounds, then the display shows the lowest frequency for the selected band.
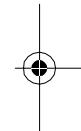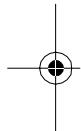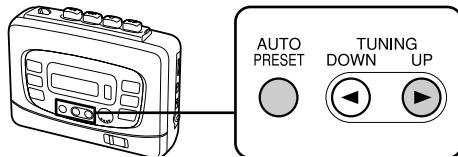
To listen to Europe's and other countries' frequencies and steps, hold down both **AUTO PRESET** and **TUNING DOWN** ◀ for about 7 seconds. **EU** appears briefly and a beep sounds, then the display shows the lowest frequency for the selected band.

To return to the local (U.S.) setting, hold down both **TUNING DOWN** ◀ and **UP** ▶ for about 7 seconds. **US** appears briefly and a beep sounds, then the display shows the lowest frequency for the selected band.

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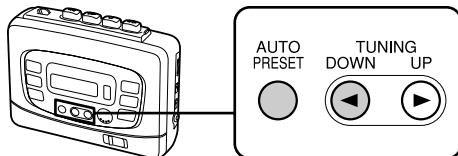
RESETTING THE SCP-99

If the SCP-99's display locks up or does not work properly after you connect power, you must reset it. To reset the SCP-99, short both of the the copper pads in the **RESET** hole behind the cassette compartment door by touching them with the tip of your headphones' or speakers' plug.

Caution: If you short the copper pads with anything other than the speakers' or headphones' plug, you may damage the SCP-99.

Important: Resetting the SCP-99 clears all the settings you have stored. Reset the SCP-99 only when you are sure it is not working properly.
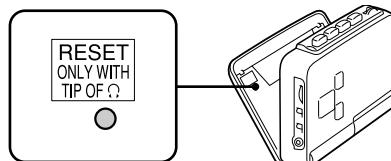
USING THE RADIO

1. Repeatedly press **RADIO ON/OFF BAND** until the display shows the desired band (**AM**, **FM1**, or **FM2**).
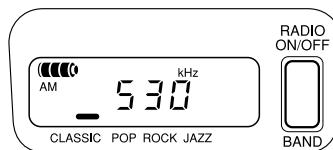
Note: FM1 and **FM2** store stations in the same frequency range, but in different (separate) memory locations.

2. Set **FM ST/MONO** to **FM ST** for stereo sound on FM stations, or to **MONO** for monaural sound.
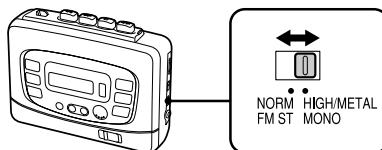
Notes:

- The AM antenna is built-in. Move the SCP-99 to the best position for AM reception.

- For the best FM reception, fully uncoil the headphones' or speakers' cord.

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• To improve reception for weak FM stereo sta-
  tions, set **FM ST/MONO** to **MONO**. The sound
  will be monaural, but reception should
  improve.

3. Tune to the desired station using manual, seek,
   or memory tuning.

   Manual — Press **TUNING UP** ► or **DOWN** ◄ to
   tune up or down the band.

   Seek — Hold down **TUNING UP** ► or **DOWN** ◄
   for about 2 seconds. The SCP-99 automatically
   searches up or down the band and stops when it
   finds the next strong station.

   Memory — See "Memory Tuning" on Page 19.
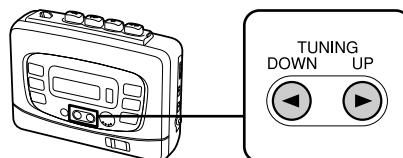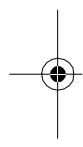
4. Adjust **VOLUME** to the desired listening level.
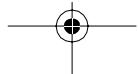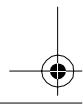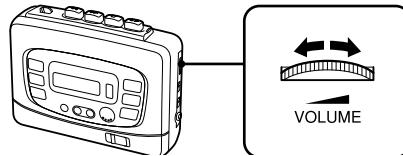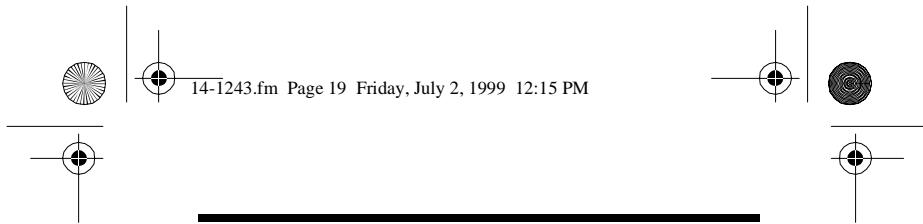
5. Repeatedly press **PRESET EQ** (equalizer) to select classic, pop, rock, or jazz sound characteristics. A bar appears above the selected sound's name on the display.
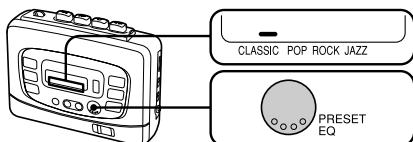
6. To turn off the radio, repeatedly press **RADIO ON/ OFF BAND** until the display clears.
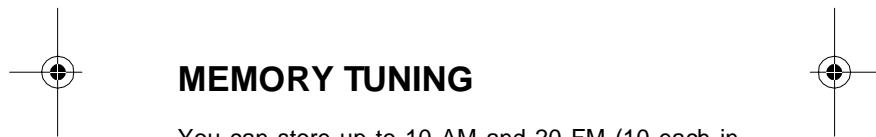
MEMORY TUNING

You can store up to 10 AM and 20 FM (10 each in FM1 and FM2) stations in memory, automatically or manually.

Storing Stations Automatically

Follow these steps to have the SCP-99 search the selected band and store the first ten stations it finds into memory locations 1–10.

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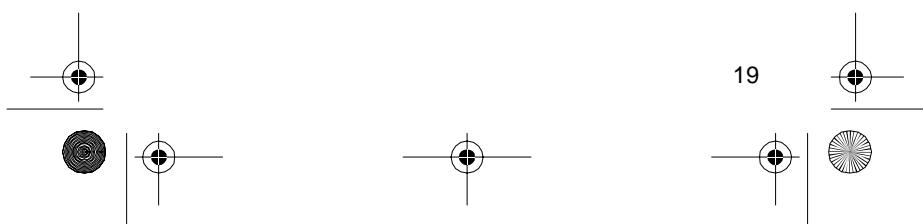
1. Repeatedly press **RADIO ON/OFF BAND** until the desired band (**AM**, **FM1**, **FM2**) appears.

2. Hold down **AUTO PRESET** for about 2 seconds until the SCP-99 starts searching.
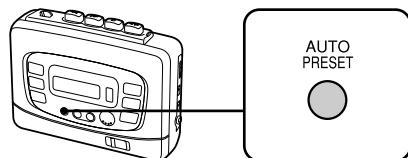
When the SCP-99 finds a station, it plays it for about 3 seconds then stores it in memory. Then the SCP-99 continues searching. After storing ten stations in that band, the SCP-99 plays the last station stored.

Note: If you do not want to store a particular station, press **AUTO PRESET** while that station is playing. The SCP-99 automatically tunes to then stores the next station.

Storing Stations Manually

1. Repeatedly press **RADIO ON/OFF BAND** until the desired band appears (**AM**, **FM1**, **FM2**).

2. Press **TUNING UP** ▶ or **DOWN** ◀ to tune to the station you want to store.

3. Hold down one of the preset number buttons (**1**–**5**) or **+5** then a number button (for memory locations 6–10) for about 2 seconds. The selected memory location number and **PRESET** appear, indicating that the station has been stored.
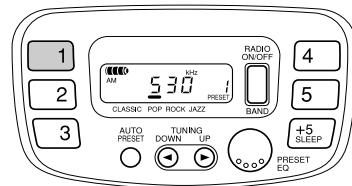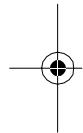
To replace a station you stored, simply store a new station in that memory location.

Selecting Stored Stations

1. Repeatedly press **RADIO ON/OFF BAND** to select the desired band.

2. Press one of the preset number buttons (**1**–**5**) or **+5** then a number button (for memory locations 6–10) to select a stored station.

Note: Do not hold down the preset number button. Otherwise, another station will be stored in that memory location.

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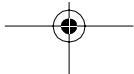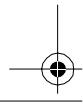
LOCKING THE HOLD SWITCH

The **HOLD** switch locks the radio's buttons (and the **PRESET EQ** setting) so you cannot accidentally change the radio's settings. To lock the buttons, slide **HOLD** in the direction of the arrow. The **HOLD** indicator flashes for several seconds and then appears steadily on the display. To unlock the buttons, slide **HOLD** in the opposite direction.

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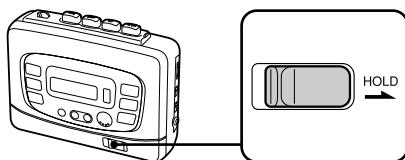
USING THE TAPE PLAYER

PLAYING A TAPE

1. Repeatedly press **RADIO ON/OFF BAND** until the display clears, to turn off the radio.

2. Gently pull open the cassette compartment door and set the automatic reverse switch to the desired position.
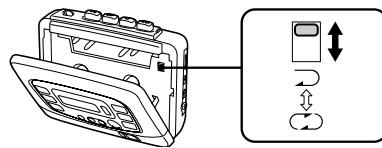
Continuous Playback ( ) — alternately plays each side of the tape until you press ☐ **STOP**.

One-Time Playback ( ) — plays both sides of the tape, then stops.

3. Insert a pre-recorded cassette into the guides with the exposed tape edge facing out and the full reel to the right. Then close the door.

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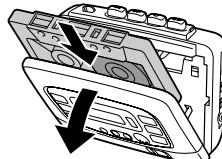
Note: If you set the direction switch to **REV**, the cassette player plays only the reverse side and stops at the end of that side if it is set to ◁▭ (see "Changing the Tape Direction" on page 26).

4. Set the tape select switch to **NORM** for normal bias cassette tapes or to **HIGH/METAL** for high-bias or metal cassette tapes.
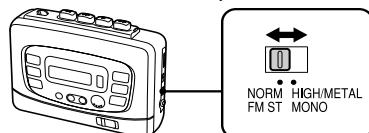
5. Set **DOLBY NR** to **ON** if you are playing a cassette tape that was recorded with Dolby B noise reduction.
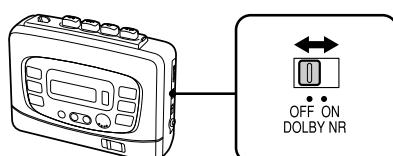
6. Press **PRESET EQ** to select classic, pop, rock, or jazz sound characteristics. A bar appears above the selected sound.

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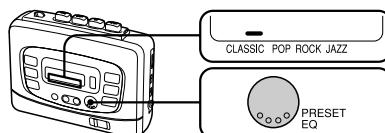
7. Press ◁ ▷ **PLAY**. The battery indicator and **TAPE** appear and the tape begins to play.
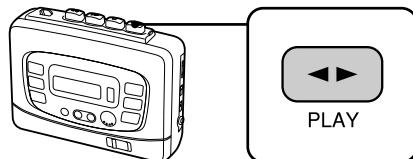
8. Adjust **VOLUME** to a comfortable listening level.
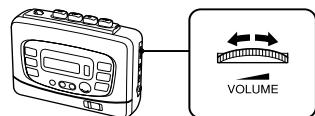
9. To stop the tape, press ☐ **STOP**.
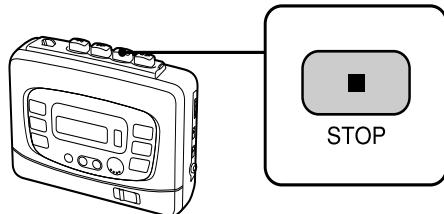
CHANGING THE TAPE DIRECTION

You can change the tape's direction to play the other side using the **FWD/REV** switch.

To listen to the tape's forward side (the one facing out), set the switch to **FWD**. To listen to the tape's reverse side (the one facing in), set the switch to **REV**.
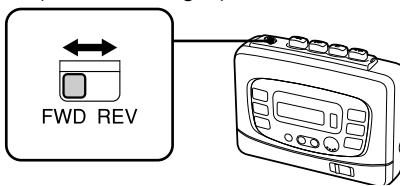
Note: If the automatic reverse switch is set to the one-time playback position, the cassette player stops when you change the **FWD/REV** switch from **REV** to **FWD**.

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USING FAST-FORWARD AND REWIND

When the tape is stopped, press ◁◁ or ▷▷ to rewind or fast-forward it..
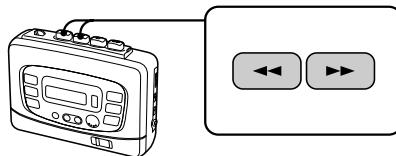
FWD/REV SETTING	Press to Fast-Forward	Press to Rewind
FWD (Forward)	◁◁	▷▷
REV (Backward)	▷▷	◁◁

Note: The tape stops when it reaches the end. Press ☐ **STOP** to release the ◁◁ or ▷▷ button or to stop the tape sooner.

TAPE TIPS

The following tips can help you get the best performance and the longest life from your SCP-99.

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Note: For the best performance, use only regular length (60- or 90-minute) cassette tapes. Avoid using long-playing cassette tapes, such as C-120s, because they are extremely thin and can tangle easily.

Restoring Tape Tension and Sound Quality

After you play a cassette tape several times, the tape might become tightly wound on the reels. This can cause playback sound quality to deteriorate.

To restore the sound quality, fast-forward the tape from the beginning to the end of one side, then completely rewind it. Then loosen the tape reels by gently tapping each side of the cassette's outer shell on a flat surface.

Caution: Be careful not to damage the cassette when tapping it. Do not touch the exposed tape or allow any sharp objects near the cassette.

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USING THE SLEEP TIMER

You can set the SCP-99 to play up to 5 hours and 59 minutes, then automatically turn off.

1. To turn on the SCP-99, repeatedly press **RADIO ON/OFF BAND** until the display shows a band (**AM**, **FM1**, or **FM2**), or press ◁ ▷ **PLAY** to begin playing a tape.

2. Hold down **SLEEP** until **SLEEP** flashes on the display.
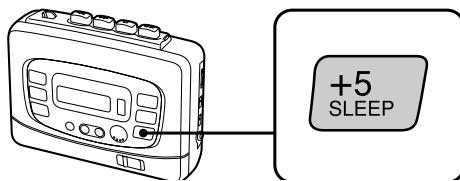
3. While **SLEEP** flashes, repeatedly press **TUNING DOWN** ◀ until the digit you want to change flashes, then repeatedly press **TUNING UP** ▶ to change the setting. Repeat this step for each digit.
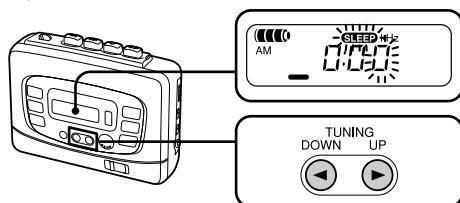
Or to use one of the preset sleep times, press one of the number buttons after holding down **SLEEP** until it flashes:

Preset **1** — 15 minutes
Preset **2** — 30 minutes
Preset **3** — 45 minutes
Preset **4** — 1 hour
Preset **5** — 1 hour 30 minutes

4. Press **SLEEP** quickly to store your setting. **SLEEP** appears steadily.

Note: When the SCP-99 turns off after the sleep time runs out, play is not released. Press □ **STOP** to prevent tape damage.

To check the remaining time until the SCP-99 turns off, press **SLEEP** until the time appears. The remaining time appears for about 5 seconds, then the display returns to the last selected function.

To cancel the sleep timer, turn off the SCP-99 by repeatedly pressing **RADIO ON/OFF BAND** until the display is clear.
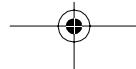
CARE AND MAINTENANCE

To enjoy your Optimus SCP-99 Auto Reverse Digital AM/FM Stereo Cassette Player for a long time:

- Keep the SCP-99 dry.

- Use and store the SCP-99 only in normal temperature environments.

- Handle the SCP-99 gently and carefully.

- Keep the SCP-99 away from dust and dirt.

- Wipe the SCP-99 with a damp cloth occasionally to keep it looking new.

Modifying or tampering with the SCP-99's internal components can cause a malfunction and might invalidate its warranty and void your FCC authorization to operate it. If your SCP-99 is not performing as it should, take it to your local RadioShack store for assistance.

CLEANING THE TAPE-HANDLING PARTS

Dirt, dust, or particles of the tape's coating can accumulate on the tape heads and other parts the tape touches. This can greatly reduce the performance of the SCP-99.

To protect the SCP-99, clean the tape-handling parts after about every 20 hours of tape player operation. Use a cassette deck cleaning kit (Cat. No. 44-1202) or follow these steps to clean the tape-handling parts.

1. Remove the batteries and disconnect any other power source.

2. Open the cassette compartment cover.

3. Press ◁ ▷ **PLAY** to expose the tape-handling parts.

4. Use a cotton swab dipped in denatured alcohol or tape head cleaning solution to clean the playback head, pinch rollers, tape guides, and capstans.
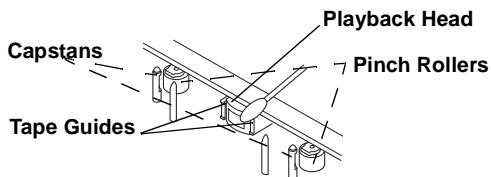
5. When you finish cleaning, press □ **STOP** and close the cassette compartment cover. Then reconnect power.

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THE FCC WANTS YOU TO KNOW

This equipment complies with the limits for a Class B digital device as specified in *Part 15 of FCC Rules*. These limits provide reasonable protection against radio and TV interference in a residential area. However, your equipment might cause TV or radio interference even when it is operating properly. To eliminate interference, you can try one or more of the following corrective measures:

- Reorient or relocate the receiving antenna

- Increase the distance between the equipment and the radio or TV

- Use outlets on different electrical circuits for the equipment and the radio or TV

Consult your local RadioShack store if the problem still exists.

SPECIFICATIONS

CASSETTE DECK

Cassette Mechanism .... Auto-Reverse

Wow and Flutter 0.2%

Signal-to-Noise Ratio .... 47 dB

Separation .... 28 dB

Frequency Response (at –3 dB) .... 70–15,000 Hz

RADIO

	FM	AM
Frequency Range:	87.5–108.1 MHz	530–1710 kHz
IF Rejection	47 dB	50 dB
Image Rejection	24 dB	27 dB
Selectivity	20 dB	22 dB
Signal-to-Noise (S/N) Ratio ...	50 dB	30 dB
Stereo Separation	30 dB	—
Usable Sensitivity	20 dBμV	66 dBμV

POWER REQUIREMENTS

Batteries .... 2 AA Batteries

AC .... 3 Volts 200 mA with AC Adapter
(Cat. No. 273-1654)

DC .... 3 Volts 200 mA with DC Adapter
(Cat. No. 270-1560)

Typical Radio Playing Time
with AA Alkaline Batteries .... 20–21 Hours (approx.)

Typical Cassette Playing Time
with AA Alkaline Batteries .... 20–21 Hours (approx.)

GENERAL

Power Output .... 12 mW

Phones Output Impedance .... 32 ohms

Dimensions (HWD) .... $3^7/_{16}$ ¥ $4^7/_{16}$ ¥ $1^3/_8$ Inches
(86.8 ¥ 112.6 ¥ 34.9 mm)

Weight .... 5.8 oz
(164 g)

Specifications are typical; individual units might vary.
Specifications are subject to change and improve-
ment without notice.

Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MER-CHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CON-TAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DI-RECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclu-sions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. Ra-dioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of Ra-dioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the re-mainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instruc-tions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product re-moval, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, Dept. W, 100 Throckmorton St., Suite 600, Fort Worth, TX 76102

We Service What We Sell   3/97

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A Division of Tandy Corporation
Fort Worth, Texas 76102